



24 100FX + 2 Giga/SFP Combo Switch

BSF-2428MS

User Manual

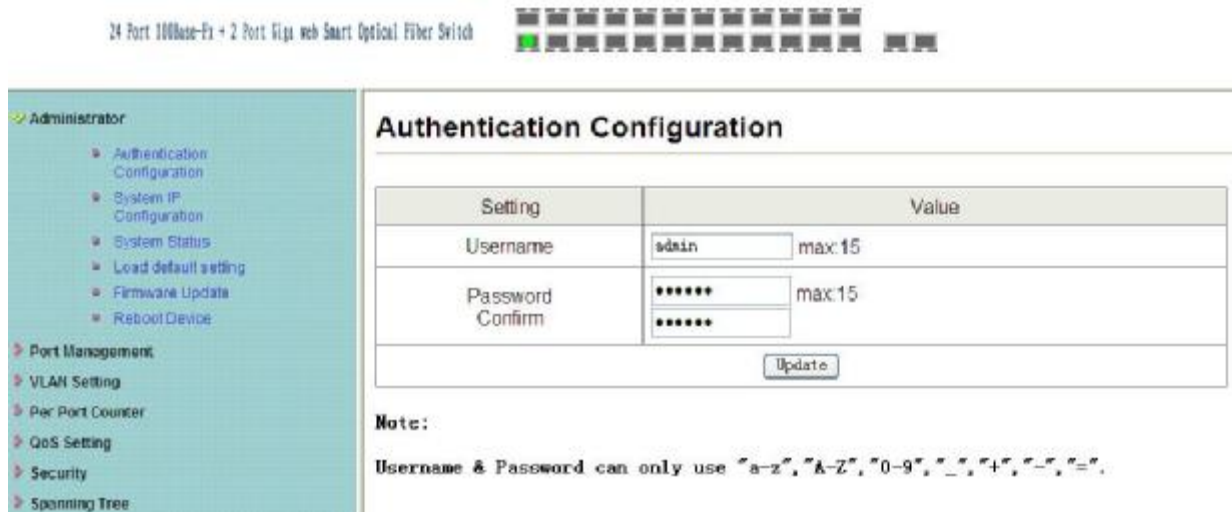
Load Default Button

This button is located at the left panel of the switch. To make this button effective, press this button for 3 seconds continuously. After completing the load default action, the entire switch configuration will be restored to the factory default, including the IP configuration, the password and the username.

◆Web Page

1 Administrator

• Authentication Configuration



24 Port 100Base-Fx + 2 Port Giga web Smart Optical Fiber Switch

Administrator

- Authentication Configuration
- System IP Configuration
- System Status
- Load default setting
- Firmware Update
- Reboot Device

Port Management

VLAN Setting

Per Port Counter

QoS Setting

Security

Spanning Tree

Authentication Configuration

Setting	Value
Username	admin max:15
Password Confirm	***** max:15

Update

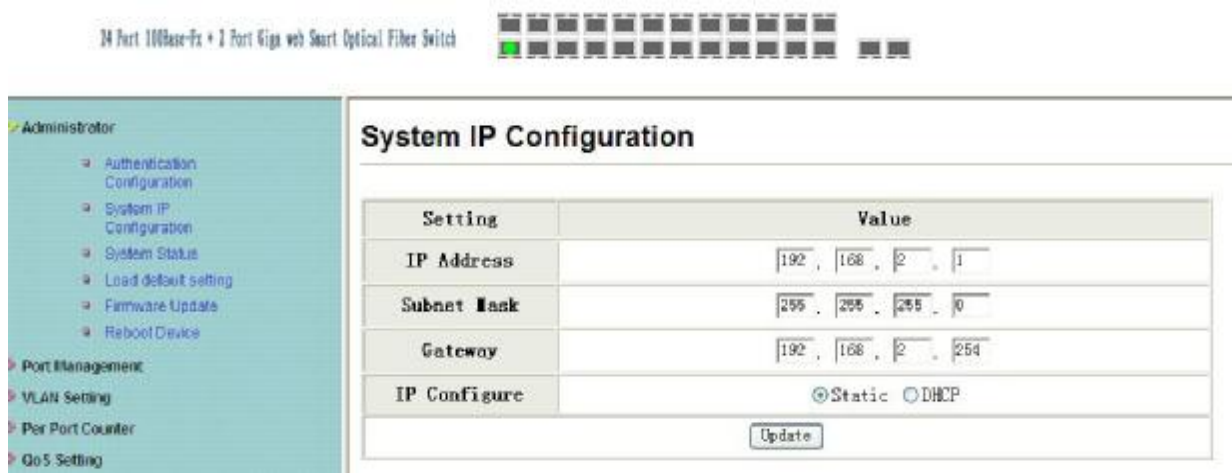
Note:
Username & Password can only use "a-z", "A-Z", "0-9", "_", "+", "-", "=", "".

The user name and password are case sensitive. In other words, "ADMIN" is not the same as "admin". The user can enter no more than 15 characters or numbers for user name and password.

After changing the user name or password, you should press "Update" to make this configuration effective.

The default setting: Username= admin; Password= system

• System IP Configuration



24 Port 100Base-Fx + 2 Port Giga web Smart Optical Fiber Switch

Administrator

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System IP Configuration

Setting	Value
IP Address	192 . 168 . 2 . 1
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 2 . 254
IP Configure	<input checked="" type="radio"/> Static <input type="radio"/> DHCP

Update

Set the IP address and the subnet mask for this switch. The configuration of Gateway IP address is optional.

Static IP address or dynamic IP address is selected by clicking “Static” or “DHCP”. After completing the configuration, you should press “Update” to make this configuration effective.

The default setting: IP address= 192.168.2.1

• System Status

The screenshot shows the 'System Status' page of a network switch. The page title is 'System Status'. The left sidebar contains a navigation menu with the following items: Administrator (selected), Authentication Configuration, System IP Configuration, System Status, Load default setting, Firmware Update, Reboot Device, Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree, Trunking, DHCP Relay Agent, Backup/Recovery, and Miscellaneous. The main content area displays the following information:

MAC Address	10:f0:13:f0:18:26
Number of Ports	24+2
Comment	switch MAX:15
System Version	IP1826_WebCtrl_IP210L3.8_v111
<input type="checkbox"/> Idle Time Security	Idle Time <input type="text" value="1"/> (1-30 Minutes) <input type="radio"/> Auto Logout(Default) <input type="radio"/> Back to the last display

Update

Note:
Comment name only can use "a-z","A-Z","_"," ","+",".","0-9"

The page shows the firmware version and the system configuration. The comment field indicates the system name that can be easily identified. It does not affect the behavior of this switch.

• Load Default Setting

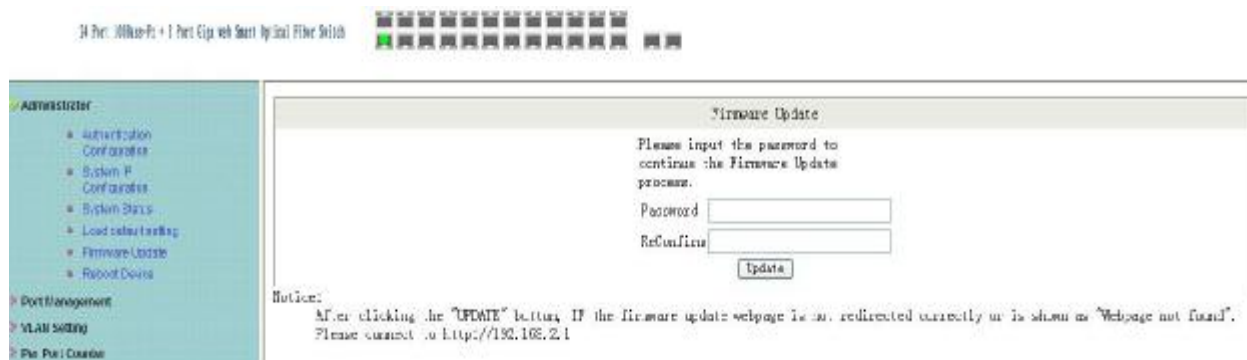
The screenshot shows the 'Load Default Setting' page of a network switch. The page title is 'Load Default Setting'. The left sidebar contains a navigation menu with the following items: Administrator (selected), Authentication Configuration, System IP Configuration, System Status, Load default setting, Firmware Update, Reboot Device, Port Management, VLAN Setting, Per Port Counter, and QoS Setting. The main content area displays the following information:

recover switch default setting excluding the IP address, User name and Password

Load

Load the switch default setting by pressing “Load” button of this page. This action does not restore IP address, user name and password to the factory default value.

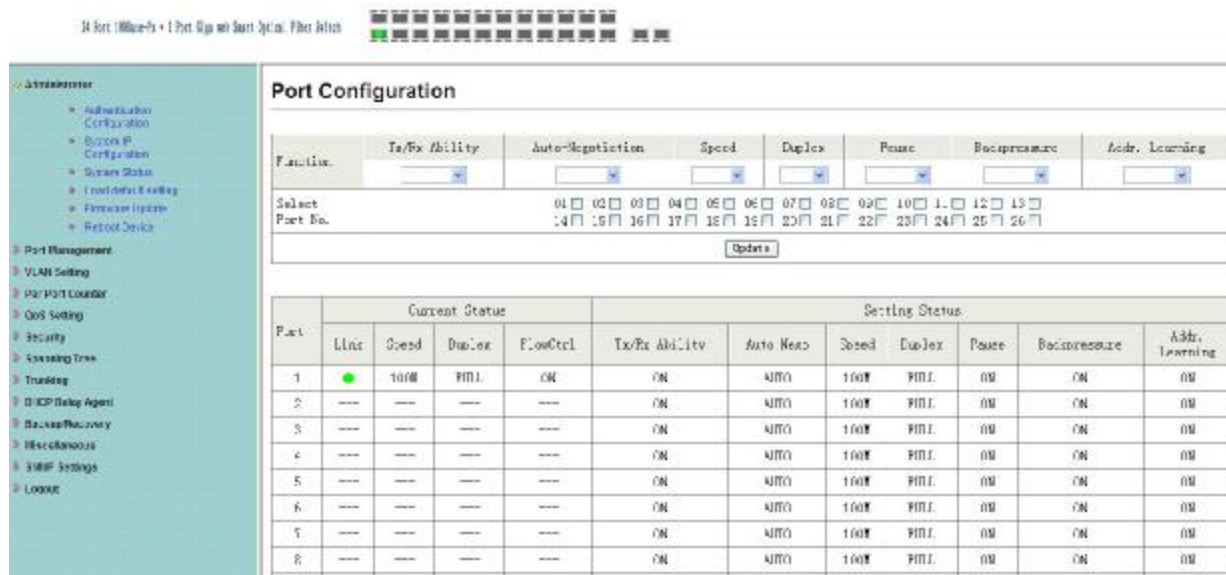
• Firmware Update



To execute the firmware update, you should enter the password at Password field and ReConfirm field. After pressing “Update” button, the switch will flush the firmware and then another page shows up to guide you to browse the binary file for update. Once the binary file is selected, the update procedure will be completed in 40 seconds.

2 Port Management

• Port Configuration



The page can set the operating mode for multiple physical ports simultaneously, including the network speed, duplex mode and flow control. After you press “Update”, the actual operating mode of each port will be shown at the bottom left side and the setting mode at the bottom right side.

• Port Mirroring

Port Mirroring

Dest Port	1	2	3	4	5	6	7	8	9	10	11	12	13
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	14	15	16	17	18	19	20	21	22	23	24	25	26
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Monitored Packets:

Source Port	1	2	3	4	5	6	7	8	9	10	11	12	13
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	14	15	16	17	18	19	20	21	22	23	24	25	26
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Multi to Multi Sniffer Function

There are multiple “source ports” and “destination ports” that can be selected simultaneously. The destination port means a port will snoop (or monitor) the packet coming from other ports. The source port means a port that can generate a copy to the destination port.

4 options can be selected as the port mirroring methods:

- (A) Disable: Disable port mirroring.
- (B) Rx: The incoming packet of the source port will be copied to the destination port.
- (C) Tx: The outgoing packet of the source port will be copied to the destination port.
- (D) Tx & Rx: Packets at both directions will be copied to the destination port.

Please note that port mirroring function is bandwidth consuming. When multisource ports are selected, the destination port may be congested.

Press “Update” to make it effective.

• Bandwidth Control

Bandwidth Control

Port No.	Tx Rate	Rx Rate
14	(0~255) 30 Full Speed	(0~255) 0 Full Speed

Speed Base:

Low:
 (1) 32Kbps Tx/Rx bandwidth resolution for port 1~ port 26.
 Actual Tx/Rx bandwidth = Rate value x 32 kbps. The rate value is 1~255.

High:
 (1) 256Kbps Tx/Rx bandwidth resolution for port 1~ port 24.
 Actual Tx/Rx bandwidth = Rate value x 256 kbps. The rate value is 1~255.
 When link speed is 100M, the rate value is 1~39.
 (2) the bandwidth resolution is 2048Kbps for port 25, port 26.
 Actual Tx/Rx bandwidth = Rate value x 2048 kbps. The rate value is 1~255.
 When link speed is 100M, the rate value is 1~48.
 When link speed is 1000M, the rate value is 1~48.

If the link speed of selected port is over than the rate that you setting, this system will use the value of link speed as your setting rate.
 If the rate filed is shown in red, it means the link speed is lower than the setting bandwidth.

Port No.	Tx Rate	Rx Rate	Link Speed	Port No.	Tx Rate	Rx Rate	Link Speed
1	Full Speed	Full Speed	100M	14	Full Speed	Full Speed	

The bandwidth control is accomplished by entering a number to the “Tx rate” and “Rx rate” and selecting “High speed” or “Low speed”. You can calculate the actual bandwidth by the following formula. The rate values ranges from 1~255. “0” means the full wire speed.

Low:

(1) 32Kbps Tx/Rx bandwidth resolution for port 1~ port 26.
 Actual Tx/Rx bandwidth =Rate value x 32 kbps. The rate value is 1~255.

High:

(1) 256Kbps Tx/Rx bandwidth resolution for port 1~ port 24.
 Actual Tx/Rx bandwidth=Rate value x 256Kbps. The rate value is 1~255.
 (2) the bandwidth resolution is 2048Kbps for port 25, port 26, .
 Actual Tx/Rx bandwidth=Rate value x 2048Kbps. The rate value is 1~255.

• **Broadcast Storm Control**

Enter a number to set the threshold for broadcast storm control. The threshold is used to limit the number of broadcast packets during a time unit. One time unit is 50us for Gigabit speed, 500 us for 100Mbps speed and 5000us for 10Mbps speed.

You can enable the broadcast storm control for each port by clicking the port number. Clicking "Update" makes the configuration effective.

3 VLAN Setting

• **VLAN Mode**

The procedure for configuring VLAN is listed below:

- (A) Select either Port based or tag based VLAN at web page of VLAN mode.
- (B) If tag based VLAN is selected, you can select which port should be added/removed a tag.
- (C) Select the uplink port for each VLAN. The usage of an uplink port is described in the following section.

Note: Regarding the usage of VLAN uplink port, please refer to “Smart switch special function”.

• VLAN Member

You can set the VLAN member on this page. For Tag based VLAN, you should set the VLAN ID and VLAN member for each group. There are 32 VLAN groups can be configured. Press “Read” to show the VLAN setting. Press “Update” to make this configuration effective. Press “Load Default” to clear the VLAN member selection.

• Multi-to-1 VLAN

This VLAN allow you to set VLAN without complicated configuration.

There are two limitations on this setting:

- (A) The original setting of the VLAN group will be cleared and replaced by this special structure if you enable this function. On the other hand, if you set the VLAN Group again, this special structure will be cleared and replaced by your newest setting.
- (B) This configuration is for port based VLAN only.

4 Per Port Counter

• Port Counter

Counter Category

Counter Mode Selection: Transmit Packet & Receiving Packet

Port	Transmit Packet	Receiving Packet
01	554	1036
02	0	0
03	0	0
04	0	0
05	0	0
06	0	0
07	0	0
08	0	0
09	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	0	0
23	0	0
24	0	0

There are 4 kinds of counter for each port; i.e.

- (1) Tx packet & Rx packet counter;
- (2) Collision & Tx packet counter;
- (3) Dropped packet & Rx packet counter;
- (4) CRC error & Rx packet counter.

You can select 1 of the 4 counters.

Click “Update” to select the counter. After clicking “Update”, the previous counter value for each port will be flushed. Click “Clear” to clear the counter to “0”. Click “Refresh” to update the counter value.

5 QoS Setting

• Priority Mode

Priority Mode

Priority Mode

Mode: First-In-First-Out All-High-before-Low Weight-Round-Robin Low weight: High weight:

Note: When the queue weight is set to "0", it will be treated as "8".
The "low weight" and "high weight" means the ratio of the packet in the transmit queue. For example,
if "low weight" and "high weight" are set to "3" and "5", the ratio of the packet for the low priority to high priority is 3/5.

There are 3 options for priority modes:

- (A) First-In-First-Out: This setting makes all packets be treated as equal priority.
- (B) All-high-before-low: This setting makes the switch forward the packet in high priority queue continuously, until it is empty and then forward the low priority packet.
- (C) Weight-and-round-Robin: This setting makes the switch forward the a specified number of high priority packets and then a specified number of low priority packets. The switch repeats this cycle continuously.

The “low weight” and “high weight” stands for the “number of packets in low priority queue” and “number of packets in high priority queue” respectively.

The number is only valid for weight-and-round-robin mode.

Note: “0” is treated as “8” for both weight numbers.

• **Port, 802.1p, IP/DS based**

24 Port S10000e-24 + 2 Port S10000e-24 (Smart) (Fiber) (S10000e-24)

Class of Service Configuration

Enable High Priority

Port No./Mode	Port Base	VLAN Tag	IP/DS	Port No./Mode	Port Base	VLAN Tag	IP/DS
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Update

This page provides 3 types Class of Service:

- (A) Port: The packet at this port will be unconditionally mapped as high priority.
- (B) 802.1p: 802.1Q tag will be checked. The packet with tag precedence 4~7 and 0~3 will be mapped to high priority and low priority respectively.
- (C) IP/DS: The switch checks the TOS or DS field to decide the priority of the packet.

Note: If a packet hit any of 3 rules listed above, it will be treated as a high priority.

• TCP/UDP Port Based

24 Port (1000000) + 1 Port (1000000) Special Filter: Default

Class of Service Configuration

Protocol	Option
FTP(20,21)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
RSH(27)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
TELNET(23)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
SMTP(25)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
DNS(53)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
TFTP(69)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
HTTP(80,8080)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
POP3(110)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
NEWS(119)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
SNTP(123)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
NFS(NFS)(137-139)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
IMAP(143,270)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
SNMP(161,162)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
HTTPS(443)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>
MSN(1883)	F-I-F-O <input type="checkbox"/> W <input type="checkbox"/>

This page provides Class of Service based on TCP/DUP protocol. In addition, this switch covers a wide range of protocols. The mask number is used to define the protocol range. The result of the calculation is a range of acceptable protocol number.

Example: The protocol should range from 1 ~ 65535 and the mask should be between 1 to 255. If you fill 7549 to the protocol field and fill 13 to the mask field, you will get the actual protocol numbers which can pass the switch. The calculation procedure is listed below.

(A) Transform the mask number into $1+4+8=13$.

(B) Subtract 0, 1, 4, 8, 13 from 7549, you will get result of 7549, 7548, 7545, 7541, 7536.

(C) The protocol number listed above can pass the switch.

Selecting "Override" makes this page configuration override the port based, 802.1p based and IP/DS based configuration.

There are 4 options for QoS setting:

F-I-F-O: The packet will be forwarded in first-in-first-out scheme.

Discard: The packet will be discarded at the source port.

High: The packet will be forwarded with the high priority.

Low: The packet will be forwarded with the Low priority.

Press "Update" to make this configuration effective.

6 Security Filter

• MAC Address Binding

14 Port 10Base-Tx + 2 Port Gig. with Smart Optical Filter Switch



- Adminstrator
- Port Management
- VLAN Setting
- Per Port Counter
- QoS Setting
- Security
 - MAC Address Binding
 - TCP/UDP Filter
- Spanning Tree
- Trunking
- RHCP Relay Agent
- Backup/Recovery
- Miscellaneous
- SNMP Settings
- Logcat

MAC Address Binding

Port No.	MAC Address																				
1	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> <p style="text-align: center; margin-top: 5px;"><input type="button" value="Read"/></p>																				
Select Port: <input type="text" value="01"/> Binding Duration: <input type="text" value="00:00:00"/> <input type="button" value="Update"/>																					

Note: If you enable the MAC address binding function, the address learning function will be disabled automatically.

Port No.	Binding Status	Port No.	Binding Status
1	Disable	14	Disable
2	Disable	15	Disable
3	Disable	16	Disable
4	Disable	17	Disable
5	Disable	18	Disable
6	Disable	19	Disable
7	Disable	20	Disable
8	Disable	21	Disable

In this page, you can assign up to 3 statics MAC addresses to a specified port. These static MAC addresses will not be aged out from the MAC address table. "ff ff ff ff ff ff" or "00 00 00 00 00 00" or blank will not be saved to the table. The configuration procedure is shown below:

- (A) To read the MAC address associated with a port, you should select the port number and then press "read" button.
- (B) To specify the MAC address to a port, you should enter the MAC address to the field, select a port number and then press "Update" to make this configuration effective.
- (C) To flush the MAC address table which you have defined, you should disable the port binding and then press "Update".

• TCP/UDP Filter

14 Port 10Base-Tx + 2 Port Gig. with Smart Optical Filter Switch



- Adminstrator
- Port Management
- VLAN Setting
- Per Port Counter
- QoS Setting
- Security
 - MAC Address Binding
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- SNMP Settings
- Logcat

TCP_UDP Filter Configuration

Function Enable:

Port Filtering Rule:

Note:
 (1) The outgoing packet with selected protocol will be either forwarded or dropped at secure WAN port as the figure shown.
 (2) "negative" means the selected protocol will be dropped and other protocols will be forwarded.
 "positive" means the selected protocol will be forwarded and other protocol will be dropped.

<input type="checkbox"/> FTP (21, 21)	<input type="checkbox"/> SSH (22)	<input type="checkbox"/> TELNET (23)	<input type="checkbox"/> SMTP (25)	<input type="checkbox"/> DNS (53)	<input type="checkbox"/> TFTP (69)	<input type="checkbox"/> HTTP (80, 8080)	<input type="checkbox"/> POP3 (110)	<input type="checkbox"/> NEWS (119)
<input type="checkbox"/> SNMP (161, 162)	<input type="checkbox"/> HDFS (42)	<input type="checkbox"/> XRD_MFP (2583)	<input type="checkbox"/> BOOTP_DHCP (67, 68)	<input type="checkbox"/> User_define_a	<input type="checkbox"/> User_define_b	<input type="checkbox"/> User_define_c	<input type="checkbox"/> User_define_d	

Secure WAN port: Port1 Port2 Port3 Port4 Port5 Port6 Port7 Port8 Port9 Port10 Port11 Port12 Port13 Port14 Port15 Port16 Port17 Port18 Port19 Port20 Port21 Port22

Note: The description of Secure WAN port is shown below.

The packet will be either dropped or forwarded, based on the selected WAN port.

11

There are two types of protocol filter. The negative list defines the protocol that will be dropped. The positive list defines the protocol that will be forwarded. You should select 1 or more WAN ports to make this setting effective. The selected protocol will be dropped at the secure WAN port. Press "Update" to make the configuration effective.

7 Spanning Tree

• STP Bridge settings

The screenshot shows the 'STP Bridge Settings' page. On the left is a navigation menu with 'Spanning Tree' expanded to show 'STP Bridge Settings', 'STP Port Settings', and 'Loopback Detection'. The main content area has a title 'STP Bridge Settings' and a table for 'Spanning Tree Settings'.

STP Mode	Bridge Priority	Hello Time	Max Age	Forward Delay
Disable	0~61440	1~10 Sec	6~40 Sec	4~30 Sec

Below the table is a 'Submit' button and a note: 'Note: STP Forward Delay = Max Age. Max Age = 2 * (Hello Time + 1). Bridge Priority must be multiple of 4096.' Another note states: 'Note: If you enable the MAC address binding function, the address learning function will be disabled automatically. Then both RSTP/STP and address learning will be affected.'

Below the notes is a 'Bridge Status' table:

STP Mode	Bridge ID	Hello time	Max Age	Forward Delay
Disable	0:00:00:00:00:00	0	0	0

At the bottom, there is a 'Root Status' table which is currently empty.

STP Mode: Disable/STP/RSTP,
 Bridge Priority: (0-61440),
 Hello Time: 1-10 Sec,
 Max Age : 6-40 Sec,
 Forward delay : 4-30 Sec;

Enter a number to set, after completing the configuration, you should press "Submit" to make this configuration effective

• STP Port settings

The screenshot shows the 'STP Port Settings' page. The navigation menu on the left has 'Spanning Tree' expanded to 'STP Port Settings'. The main content area has a title 'STP Port Settings' and a table for 'STP Port Settings'.

Port No.	Priority	RPC
1	0~240	1~200000000 0=Auto

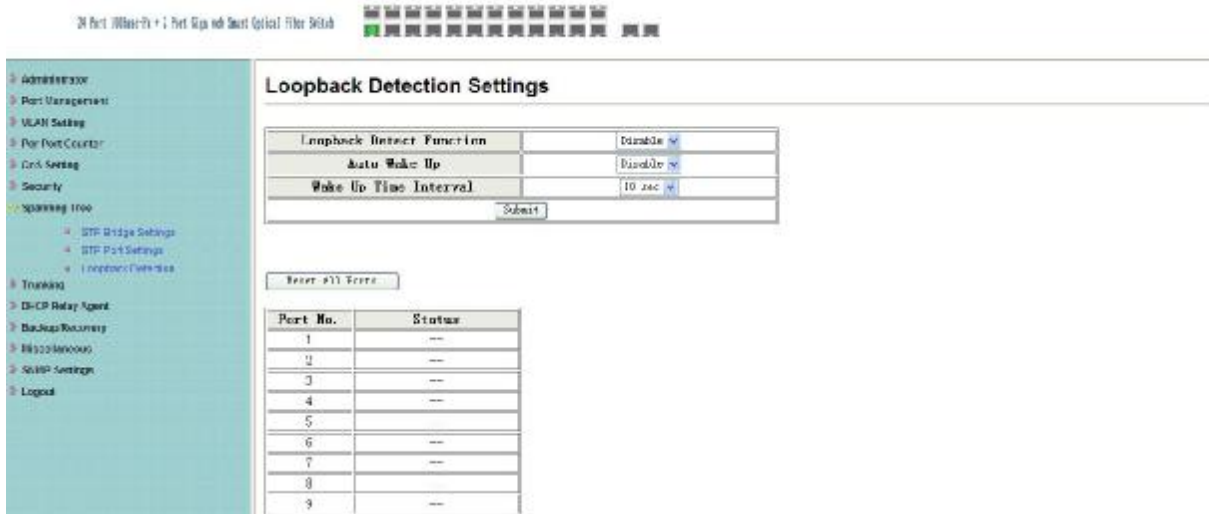
Below the table is a 'Submit' button and a note: 'Priority must be multiple of 16.'

Below the notes is an 'STP Port Status' table:

Port No.	RPC	Priority	State	Status	Designated Bridge	Designated Port
1	Auto:0	0x80	--	Disable	--	--
2	Auto:0	0x80	--	Disable	--	--
3	Auto:0	0x80	--	Disable	--	--
4	Auto:0	0x80	--	Disable	--	--
5	Auto:0	0x80	--	Disable	--	--
6	Auto:0	0x80	--	Disable	--	--
7	Auto:0	0x80	--	Disable	--	--

Port1-Port26, Priority: 0-240,
 RPC: 1-20000000, 0=AUTO,
 Enter a number to set, after completing the configuration, press “Submit” to make this configuration effective

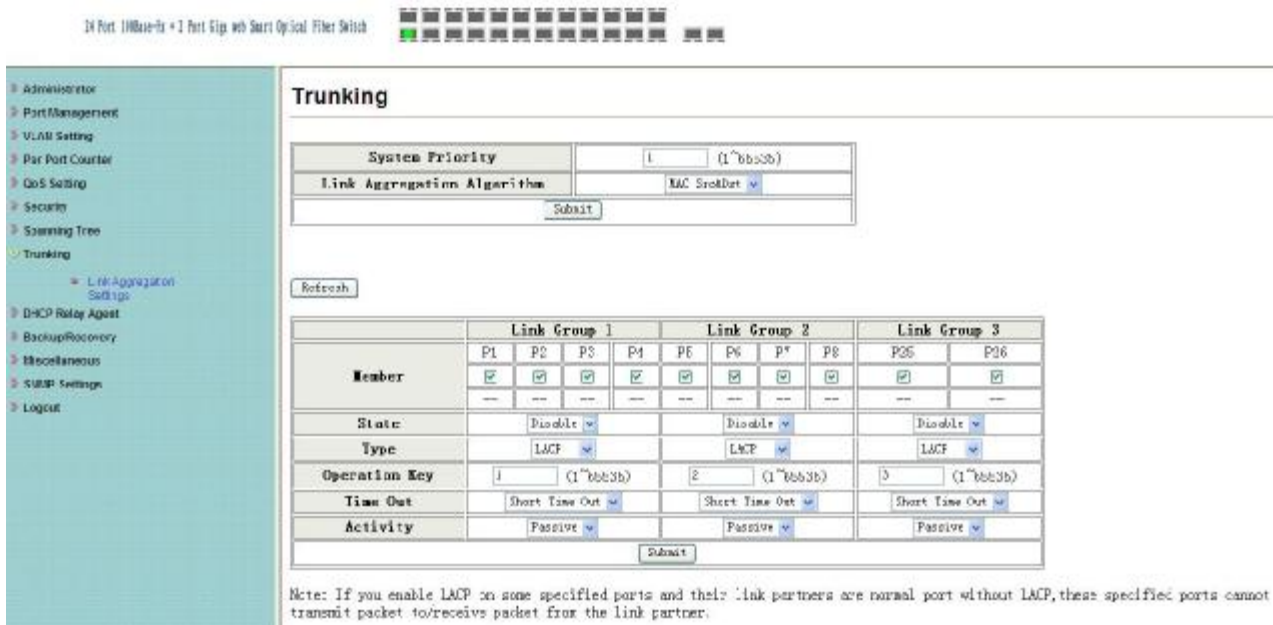
• **Loopback Detection Settings**



Loopback Detection Function: Disable/Enable,
 Auto Wake Up: Disable/Enable,
 Wake-Up Time Interval: 5/10/30/60Sec
 After completing the configuration, press “Submit” to make this configuration effective

8 Trunking

• **Link Aggregation settings**



Select 1 of 4 hash algorithm for traffic distribution:

- (1) Physical port ID;
- (2) Source MAC address;
- (3) Destination MAC address;
- (4) Source MAC address & Destination MAC address. The port ID is selected by default setting. Click more than one port for each trunk. If you select only one port for each trunk, this setting will be ignored. Pressing "Submit" makes the configuration effective.

9 DHCP Relay Agent
• DHCP Relay Agent



DHCP Relay State: Disable/Enable,
 DHCP Relay Hops Count Limit: 1-16,
 DHCP Relay Option 82 State: Disable/Enable.
 After completing the configuration, you should press "Update" to make this configuration effective

• Relay Server



Enter DHCP Server IP and press "Add" to make this configuration effective

• VLAN MAP Relay Agent

24 Port 10GBase-Tx + 2 Port Sfp web Smart Optical Fiber Switch

DHCP Relay Agent

VLAN ID: Map Server IP:

MAP List

VLAN ID	Server IP	Action
2	192.168.1.99	<input type="button" value="DEL"/>
2	192.168.1.100	<input type="button" value="DEL"/>

Enter VLAN ID: 1-4094, selecting Map Server IP,press “Add” to make this configuration effective

10 Backup/Recovery

24 Port 10GBase-Tx + 2 Port Sfp web Smart Optical Fiber Switch

Configuration Backup/Recovery

Backup(Switch→PC)

Please check "Download" to download EEPROM contents.

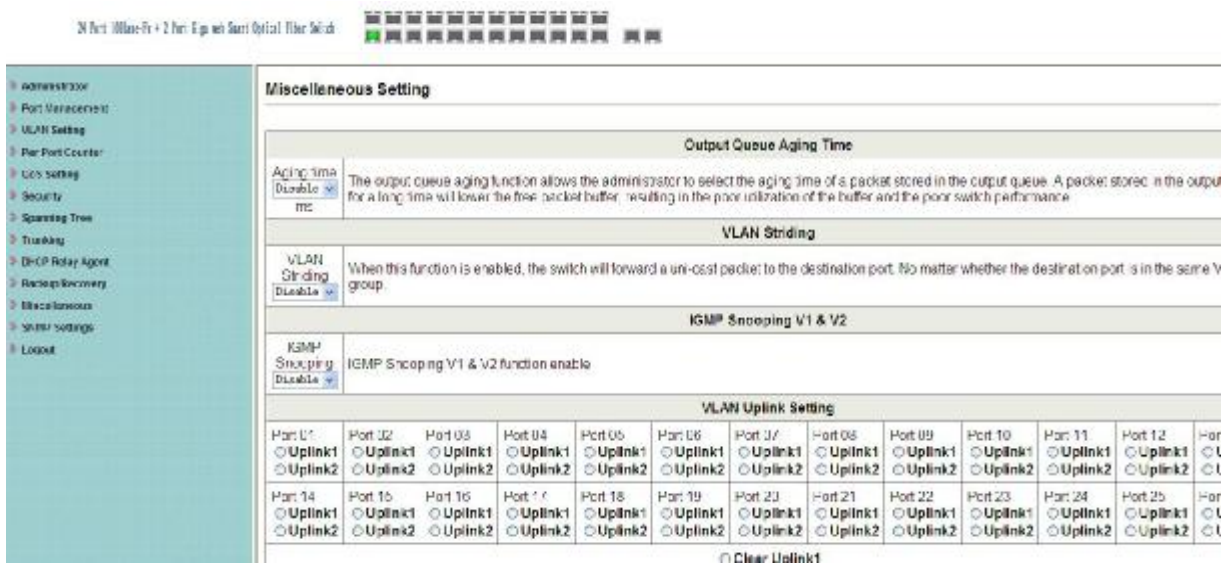
Recovery(PC→Switch)

Select the image file:

Password:

This function provides a method for the user to backup/recover the switch configuration. Press “Download” button to save the switch configuration to a file. This file contains the switch configuration stored in EEPROM and will be saved in a readable text format. Enter the file name or browse the directory to select a file which is used to restore the switch configuration. Press “Update” to recover the switch configuration.

11 Miscellaneous Settings



• Output Aging Time

The output queue aging function allows the administrator to select the aging time of a packet which is stored in the output queue for a long time. A packet stored in the output queue for a long time will lower the free buffer, resulting in the poor utilization of the buffer and the poor switch performance.

The aging time can be set within 200ms ~800ms or be disabled.

Note: Regarding the usage of output queue aging time, please refer to “Smart switch special function”.

• VLAN Striding

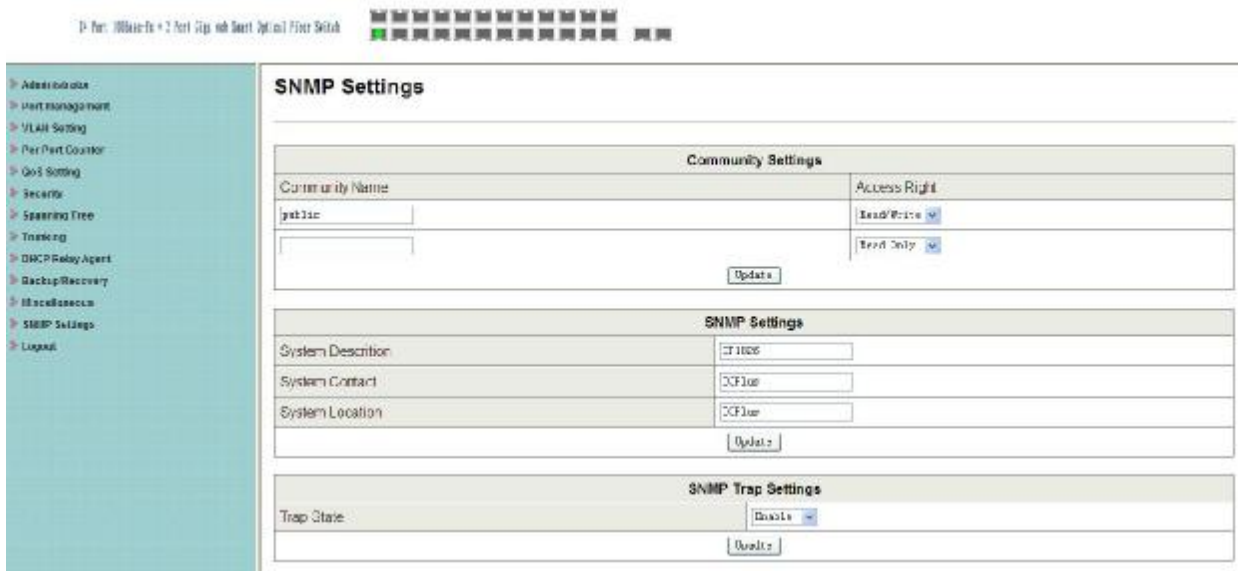
When this function is enabled, the switch will directly forward a uni-cast packet to the destination port. No matter if the destination port is in the same VLAN group.

• IGMP Snooping

This function enable or disable the IGMP snooping. Only V1 & V2 are supported by this setting.

12 SNMP Settings

IP: 192.168.1.100 - 2 Port Gig. with Smart Optical Fiber Switch



The image shows a web-based configuration interface for SNMP settings. On the left is a navigation menu with items like Administration, User Management, VLAN Setting, etc. The main content area is titled 'SNMP Settings' and is divided into three sections: 'Community Settings', 'SNMP Settings', and 'SNMP Trap Settings'. The 'Community Settings' section has a table with 'Community Name' (public) and 'Access Right' (Read/Write and Read Only). The 'SNMP Settings' section has fields for 'System Description', 'System Contact', and 'System Location'. The 'SNMP Trap Settings' section has a 'Trap State' dropdown menu set to 'Disable'. Each section has an 'Update' button.

Community Settings	
Community Name	Access Right
public	Read/Write
	Read Only
<input type="button" value="Update"/>	

SNMP Settings	
System Description	192.168.1.100
System Contact	192.168.1.100
System Location	192.168.1.100
<input type="button" value="Update"/>	

SNMP Trap Settings	
Trap State	Disable
<input type="button" value="Update"/>	

Enter Community Name, selecting Access Right: Read only/ Read/Write. Pressing “Update” makes the configuration effective.

SNMP Settings: Enter System Description/ System Contact/ System Location info. Pressing “Update” makes the configuration effective.

SNMP Trap Settings: Trap State selecting Disable /Enable. Pressing “Update” makes the configuration effective.

13 Logout

Logout?

Pressing “Accept”, System logs out, pressing “Back” System turns back